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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/852,376	05/10/2001	Eric A. Jacobsen	884.427US1	5426
21186	7590	11/15/2005	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH 1600 TCF TOWER 121 SOUTH EIGHT STREET MINNEAPOLIS, MN 55402			LY, ANH VU H	
			ART UNIT	PAPER NUMBER
			2667	

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b></p>	<p>Application No. 09/852,376</p>	<p>Applicant(s) JACOBSEN, ERIC A.</p>	
	<p>Examiner Anh-Vu H. Ly</p>	<p>Art Unit 2667</p>	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 20 October 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.


**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

Continuation of 11. does NOT place the application in condition for allowance because: Applicant argues in page 7 that considering every channel or subcarrier as an interested subcarrier does not read on the element of identifying subcarriers of interest because no identifying then occurs. Examiner respectfully disagrees. Herein, all subcarriers are already considered as interested subcarriers before passing on for further processing (Fig. 2). Applicant further argues in page 7 that applicant can not find any reference to subcarriers in Kadous. Examiner respectfully disagrees. Kadous discloses (see Abstract) a method and apparatus for estimating channels in OFDM communication systems. As is known in the art, OFDM systems using multiple subcarriers to carry data. Therefore, Kadous discloses subcarriers for carrying data (Fig. 1). Applicant further argues in page 8 that Kadous does not disclose obtaining a first interpolation vector corresponding to a first subcarrier of interest and calculating a dot product of the pilot vector and first interpolation vector to generate an equalization coefficients for first subcarrier of interest. Examiner respectfully disagrees. Kadous discloses on page 3, 32nd paragraph and Fig. 2, that the least square (LS) channel estimate (pilot vector) is then determined by performing division on the training sequence (pilot symbols) in LS estimator 56 (generating a pilot vector using pilot symbols from OFDM symbol). Coefficient interpolator and channel estimator then multiplies (dot product) interpolation coefficient for each channel (herein, every channel or subcarrier is considered as an interested subcarrier) (obtaining a first interpolation vector corresponding to a first subcarrier of interest) by the LS estimator to obtain the final channel estimates (calculating a dot product of pilot vector and first interpolation vector to generate an equalization coefficient for first subcarrier of interest). Applicant further argues in page 8 that equalization coefficients are not final channel estimates. Examiner respectfully disagrees. Equalization coefficients are coefficients to be used in some mathematical formulas. Herein, the channel estimates also include coefficients to be used for removing undesired channel effects. Applicant further argues in pages 9-11 that Kadous fails to disclose other limitations as recited in the claims. Examiner respectfully disagrees. The final rejection dated August 18, 2005 clearly indicated that all limitations as recited in the claims were probably rejected and included further elaborations to clarify examiner's position regarding the teachings of Kadous.

  
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